DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Food and Drug Administration
M7773n

Dallas District
3310 Live Oak Street
Dallas, Texas 75204-6191

July 2, 1999

Ref: 99-DAL-WL-20

WARNING LETTER

VIA FACSIMILE
AND FEDERAL EXPRESS

Mr. Paul E. Kelly, Director of Sales and Business Development
Bird Life Design
4450 Alpha Road
Dallas, Texas 75244

Dear Mr. Kelly:

During an inspection of your firm located in Dallas, Texas, on March 15-19, 1999, our investigator determined that your firm manufactures the Pulmanex emergency manual resuscitator and PEEP-FLO adjustable positive end expiratory pressure (peep) valve. These products are devices as defined by Section 201(h) of the Federal Food, Drug, and Cosmetic Act (the Act).

The above-referenced inspection revealed that these devices are adulterated within the meaning of Section 501(h) of the Act, in that the methods used in, or the facilities or controls used for their manufacturing, packing, storage, or installation are not in conformance with the Current Good Manufacturing Practice (CGMP) requirements for devices set forth in the Quality Systems Regulation specified in Title 21, Code of Federal Regulations (CFR), Part 820.

The following violations were provided to you on the FDA-483 (Inspectional Observations) and are discussed below. Further, we are in receipt of your response to the FDA-483, dated April 7, 1999, and the results of that review are also indicated below.

1. Failure to analyze processes, work operations, concessions, quality audit reports, quality records, complaints, and other sources of quality data to identify existing and potential causes of non-conforming products, including appropriate statistical methodology to detect recurring quality problems, as required by 21 CFR 820.100(a)(1); and

2. Failure to investigate the cause of the nonconformities relating to product, processes, and the quality systems as required by 21 CFR 820.100(a)(2); and

3. Failure to identify the action(s) needed to correct and prevent recurrence of nonconforming product and other quality problems as required by 21 CFR 820.100(a)(3); and

4. Procedures for addressing the investigation and evaluation of nonconforming product were not followed as required by 21 CFR 820.90(a).

Non-conforming devices were distributed as evidenced in FDA-483 Item 1 and 2 on the FDA-483. In the April 7, 1999 response, you stated "the cause of increased incidence of PEEP-FLO devices was not investigated because the scrap level was not significant to be visible at your [redacted] Management Review Meetings, and that the Peep valves did not exceed the scrap percentage limit." We disagreed with this rationale. Inspectional records, discussions between the FDA investigator and the firm, and records submitted as part of your FDA-483 response indicated the following deviations:

Bird Life has not defined how scrap will be analyzed, documented, and evaluated for corrective action via a documented procedure. You stated the Quality Manager would review and analyze scrap level on a [redacted] basis. You did not submit a documented procedure for our review. Further, you have neither defined nor provided this office with the scrap percentage set limit and its basis for review and evaluation. Indicators, such as production scrap, would provide a timely detection of existing or potential quality problems. During the inspection, the FDA investigator asked to review your firm's failure trending data for the non-conforming peep valves that had failed finished product testing. Ms. Natalia Volosen, Quality Assurance Manager, indicated that your firm did not have the trending data for peep valves because it was not a high scrap issue, and that peep valves that failed finished product testing were treated as scrap material and not controlled as non-conforming material. Further, she indicated that this was a business issue and not a quality issue. We found this response inadequate. As per 820.100 (a)(1) and 820.100(a)(7), your firm is required to analyze and document sources of quality data with appropriate statistical methodology to identify existing and potential causes of nonconforming products. Having documentation of trending data or other appropriate means of data collection would provide a feedback to your firm's quality assurance system as to whether or not your firm has a quality problem.

Bird Life should refer to the Preamble comments #30, 154, 155 of the Current Good Manufacturing Practice (CGMP) Final Rule – Quality System Regulation (Federal Register Volume 61, No. 196, Monday October 7, 1996) for correct interpretation of Nonconforming Product.

Sources of quality data, such as production scrap, documented and analyzed are subject to FDA inspection and review. As per 820.180 (General Requirements) and 820.20(c) (Management Review), during the inspection FDA investigators will not

review results of your internal management reviews that were based on the analysis of quality data, e.g., production scrap. However, if your firm takes corrective action as a result of your review of the data analysis, the corrective action and sources of quality data are then subject to the FDA inspection and review.

In the April 7, 1999 response, you indicated it was recently discovered (sometime in 1998), production experienced a lot of problems with the units failing the test (TP-025). Inspectional records reviewed indicated these failures have caused an unapproved modification to the [redacted] of the Peep valve which later resulted in Peep valves with Peep values higher than product specifications. And Peep valves were tested with faulty test equipment for approximately [redacted] These two factors allowed the Peep valves to pass finished device testing and later resulted in several complaints. Bird Life failed to follow its Non-Conforming Material Handling and Product Retention Procedure (Doc #5009, dated 6/12/96) in that " a lot of problems with units failing the test (TSP-025)" was not properly evaluated and investigated by the Material Review Board (MRB) or appropriate designated individual(s).

In your response to FDA-483 Item 2, you stated production received verbal approval from QC and Engineering to continue [redacted] the [redacted] and engineering was supposed to get with the vendor to discuss the packaging and any changes made to the [redacted]. Apparently this was not done because your employees continued to [redacted] the [redacted] which result in high Peep values, and test the Peep valves with faulty test equipment which failed to detect high readings of Peep values. Your later investigation in February, 1999 indicated there was nothing wrong with the [redacted] In our view, had engineering done their follow-up with the vendor earlier in 1998, they would have found nothing wrong with the [redacted] and detected a problem with the test equipment sooner.

Further, your response to FDA-483 Item 1 did not provide the number of lots of Peep valves and the production time frame affected by this event to this office for review (e.g. when is "sometime last year, 1998", how many lots were involved, and what is the scrap percentage). Discussions between the FDA investigator and Ms. Voloson indicated she had neither determined the affected lots nor had time to provide this information during the inspection. This information should have been determined during your complaint investigation prior to the inspection and made available for FDA review at the time of the inspection.

Your response also indicated that because of the small hole on the [redacted] of the test equipment, Bird Life was not able to duplicate several customer complaints of incorrect Peep readings until you got assistance from [redacted] who had also filed a complaint and sent a number of defective Peep valves back to Bird Life for

testing. Due to [redacted] of the [redacted] and the use of faulty test equipment, FDA found test results for lots produced between [redacted] questionable. Questionable test results are substantiated by the fact that Bird Life's in-house testing was not able to duplicate customer complaints and test results. Inspectional records reviewed indicated Bird Life had sent a replacement of [redacted] new Peep valves to [redacted] and gave permission to destroy the remaining [redacted] Peep valves in [redacted] stock. It appears Bird Life has not notified other customers of the same problem.

With regard to the test equipment maintenance and calibration, your response to FDA-483 Item 1 stated the test equipment used to test the Peep valves was under a preventive [redacted] maintenance system and all gauges included in the equipment are also under a calibration system. Preventive maintenance and calibration was performed as scheduled and no problems were found with the system. As evidenced in your response, it appears Bird Life's equipment and calibration procedures used prior to your receipt of the [redacted] complaint did not accurately detect malfunctions in the Peep valve test equipment. As correction, Bird Life has implemented a [redacted] Test Equipment Verification Program Procedure and requires each piece of equipment be verified on a [redacted] basis for proper functioning with known good and bad samples. However, we need verification of your past and current calibration and maintenance activities for the test equipment in question. Please provide copies of the equipment calibration and maintenance records for the [redacted] test equipment , including its procedures, from [redacted] For the [redacted] test equipment in use, please provide similar records from [redacted] to the present time.

Your further response to FDA-483 Item 1 concerning MDR Complaint # [redacted] indicated the Peep valve was affected by the [redacted] nebulized medication which was used for treating patients with respiratory problems. Your conclusion, as documented in this MDR complaint, indicated high Peep valve settings were not being monitored with a manometer by the [redacted] the [redacted] did not have spontaneous breathing, plus residue of the nebulized medication (made the valve to stick) contributed to this incident. Bird Life's investigation results indicated it appeared the Peep valve was not removed when the nebulized therapy was administered. Our review of the peep valve labeling attached to your response does not indicate any instructions for use or warning statement concerning nebulized applications. Please provide clarification.

Review of complaints #M98-035, 98-035, and 99-004, Engineering Reports 227, 228, and 229, revealed the following:

In your response to FDA-483 item 1 and 2, you stated that Bird Life's failure investigations using the previous production test procedure (TSP-025) and test equipment were not able to duplicate high readings from [redacted] and [redacted]

[redacted] because there was a leak in the test equipment. This [redacted]. As a result, [redacted] and Bird Life was able to duplicate the out-of-specification test results provided by the [redacted] and the [redacted]. You further stated there was nothing wrong with the [redacted] and the test equipment was not working properly.

You further stated after Bird Life's failure investigation of the [redacted] complaint, No. [redacted], the floor test equipment was examined carefully and a small hole was found on the [redacted] which in turn caused a malfunction of the test equipment. Inspectional records reviewed did not show Bird Life had attempted to retest the returned samples from customers with a new [redacted] in place in an effort to duplicate their test results. This could have confirmed the hole was the real cause of incorrect readings.

Our further review of your Engineering Reports 228 and 229 saw a different conclusion. Page 2 of Engineering Report 228, under the "Purpose" Section, stated "To determine a [redacted] test procedure for PEEP-FLO valve. The [redacted] test procedure [redacted] is not catching the [redacted] which shows a higher reading than the set up." Based on the test results analyzed and conclusion documented by your Engineering Department, it appears that Bird Life's production test procedure and test equipment used prior to its receipt of the [redacted] complaint were not capable of producing accurate test results during finished device testing. This is contrary to what you stated in your complaint investigation which blamed the hole as the cause of the problem.

Further test results obtained by the [redacted] test method and test equipment confirmed returned samples from the [redacted] and the [redacted] to be out-of-specification, whereas your [redacted] test procedure and test equipment failed to detect this problem. As stated in your response, Bird Life blamed the hole as the cause of incorrect readings. If the hole was the problem, why did Bird Life not replace the [redacted] and continue using the same test equipment. Instead, you chose to use the [redacted] test method and test equipment. Using the [redacted] test method and test equipment, as recommended by your [redacted], gives an indication that your [redacted] test method and test equipment were not capable of producing accurate test results during production. Please provide additional clarification on your failure investigations.

5. Failure to document process validation activities and results as required by 21 CFR 820.75(a). For example, records of validation performed for the Oxygen Line [redacted] Test Fixture #68 were not maintained.

In the April 7, 1999 response, you stated that a former employee performed the original process validation for this test fixture in [redacted], and that documentation could not be located. As correction, Bird Life revalidated the line [redacted] test during the inspection and attached Process Validation Report 99001 to this response. Our review of this validation report identified several deficiencies as follows:

- The validation protocol does not include or reference any applicable test procedures to be used. Inspectional records reviewed indicated test procedureTP-100 is typically used to test for [redacted] in the [redacted] line and [redacted] housing during production. We could not confirm if this test procedure, or if other test procedures, were used during the validation.

- The validation protocol and results do not either document or reference calibration of the test fixture and its associated instruments (e.g., timer, pressure gauge).

- The validation protocol identifies product code [redacted] as the only product code tested during the validation. It does not indicate whether this product code is representative of the [redacted] series or other rationales.

- The validation protocol identifies "Pass" and "Fail" as acceptance criteria for the [redacted] line and/or [redacted] housing. [redacted] known bad units with a completely [redacted] housing and [redacted] tubes were tested for [redacted]. The validation does not include testing of the [redacted] housing and [redacted] with partial [redacted] to validate the "Pass" and "Fail" criteria.

We also reviewed your responses to FDA-483 Item 4, 5, 7, 8, 9, 10, 11 for corrective action. Your specific responses to these 483 items appear adequate.

Additionally, the inspection revealed that Peep valves are misbranded within the meaning of Section 502(t)(2) of the Act in that your firm failed to make reports that are required under Section 519. Specifically, your firm failed to submit Medical Device Malfunction Reports as required by 21 CFR 803.50(a)(2) for the following:

- Complaint File [redacted] reported high readings with Bird Life's Peep valves.

- Complaint File [redacted], indicated that Bird Life's Peep valves raised residual peep even when dialed out past zero.

In addition, you failed to submit a written report to FDA of the correction you initiated for PEEP-FLO valves located at [redacted] as required by 21 CFR 806.10.

A March 5, 1999 letter to [redacted] advises the firm to destroy [redacted] PEEP-FLO valves in stock and refers to the shipment of [redacted] replacement valves. The letter explains the reason for the replacement, i.e., Bird Life's test equipment did not "flag" devices with high peep settings. Your action meets the definition in 21 CFR 806.2(d) of a correction. FDA considers the correction to have been initiated to reduce a risk to health posed by the device. A risk to health is defined in 21 CFR 806.2(j)(2), to mean that the use of, or exposure to, the product may cause temporary medically reversible adverse health consequences, or an outcome where the probability of serious adverse health consequences is remote.

This letter is not intended to be an all-inclusive list of deficiencies at your facility. It is Bird Life's responsibility to ensure adherence to each requirement of the Act and regulations. The specific violations noted in this letter and in the FDA-483 issued at the closeout of the inspection may be symptomatic of serious underlying problems in your firm's manufacturing and quality assurance systems. You are responsible for investigating and determining the causes of the violations identified by the FDA. If the causes are determined to be systems problems, you must promptly initiate permanent corrective actions.

Until these violations are corrected, and FDA has documentation to establish that such corrections have been made, federal agencies will be advised of the issuance of this Warning Letter so that they may take this information into account when considering the award of contracts.

You should take prompt action to correct these deviations. Failure to promptly correct these deviations may result in regulatory action being initiated by the Food and Drug Administration without further notice. These actions include, but are not limited to, seizure, injunction, and/or civil penalties.

Please notify this office in writing within 15 working days of receipt of this letter, of the specific steps you have taken to identify and correct any underlying systems problems necessary to assure that similar violations will not recur. If corrective action cannot be completed within 15 working days, state the reason for the delay and the time frame within which the corrections will be completed.

Your reply should be directed to Thao Ta, Acting Compliance Officer, at the above letterhead address.

Sincerely yours,

Joseph R. Baca
Dallas District Director

cc: Mr. Tony Van Den Berg, President

Mr. Burt Boss, Vice President Operations

Thermo Respiratory Group
1100 Bird Center Drive
Palm Springs, CA 92262